Overview of Mental Health Medications for Children and Adolescents

Module 2
Depressive Disorders

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Depression in Adolescents

* Major Depressive Disorder
  * Persistent depressed mood and/or irritability
  * Vegetative symptoms
  * Lasting at least 2 weeks
* Dysthymia
  * Persistent depressed mood and/or irritability
  * Low self esteem
  * Tiredness
  * Decreased concentration
  * At least 1 yr in duration

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Symptoms in Youth

* Sadness that doesn't go away
* Altered sleep, appetite or energy
* Loss of interest in usual activities
* Missed school or poor academic performance
* Physical symptoms
* Irritable, fighting, difficulty concentrating
* Feeling hopeless, withdrawn
* Thoughts of suicide, death, running away

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Symptoms in Pre-pubertal Youth

- Separation anxiety
- Somatic complaints
- Behavioral complaints (aggression)
- Poor school performance
- Changes in sleep and energy

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Suicide Risk

- Major depressive disorder
- Family history of mood disorder or suicide
- Previous suicidal behavior
- Substance abuse
- Psychosocial stressors (ie loss of family member)
- Family violence
- Rejection or humiliation

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Suicide Warning Signs

- Becoming cheerful after period of depression
- Putting affairs in order
- Future planning stops
- Comments
  - "I won't be a problem much longer"
  - "You don't need to worry about me"

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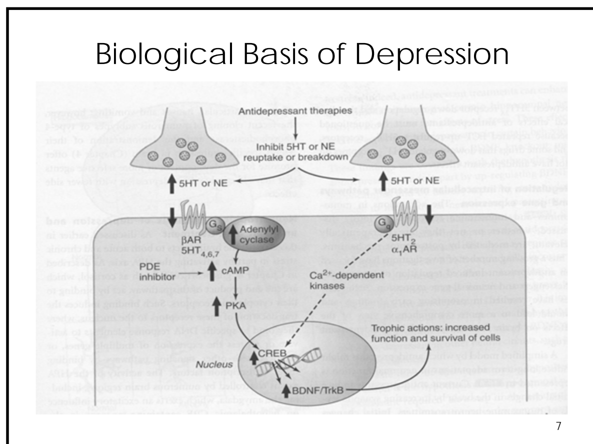
Biological Basis of Depression



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Antidepressants: Onset of Action

- Clinical effect is usually not manifest for 1-3 weeks
- Clinical rule is usually to treat patient for a minimum of 6 wks at an adequate dosage before changing
- Synaptic effects occur immediately (hrs)
- Adverse effects have same time course as synaptic effects

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NE Transport Blockers: Adverse Effects

NE transporter blockade	Tremors, Tachycardia, Enhanced effects of sympathomimetics
$Alpha_1$ blockade	Reflex tachycardia, Orthostatic hypotension
Antihistamine effects	Sedation, Weight gain, Potentiation of central depressant drugs
Anticholinergic effects	Blurred vision, Dry mouth, Tachycardia, Constipation, Urinary retention

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Serotonin Transport Blockers: Adverse Effects

Receptor	Location	Side Effect
2A/2C	Raphe to limbic	Agitation, anxiety, panic attacks
2C	Basal ganglia	Akathisia, dystonia, parkinson-like actions
2A	Brainstem	Myoclonus
2A	Mesocortical	Apathy
¾	GI tract	Increased GI activity, diarrhea

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Antidepressants

* Selective serotonin reuptake inhibitors preferred
* Fluoxetine (Prozac) – FDA approved 8-18 yrs
* Escitalopram (Lexapro) – FDA approved 12-17 yrs
* Fluvoxamine
* Sertraline (Zoloft)
* Citalopram (Celexa)
* Paroxetine (Seroxat, Paxil CR)

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SSRIs –Adverse Effects

* Suicide
* GI symptoms
* Change in appetite
* Sedation/activation
* Increased sweating
* Rare: Serotonin syndrome

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Antidepressants

* Selective Norepinephrine Reuptake inhibitors (SNRIs) – increase NE and 5-HT
* Include
  * Duloxetine (Cymbalta)
  * Venlafaxine (Effexor, Effexor XR)
  * Desvenlafaxine (Pristiq)

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SNRI- Adverse Effects

* Suicide
* GI symptoms
* Change in appetite
* Sedation or activation
* Increased sweating

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Antidepressants

* Tricyclic antidepressants – inhibit NE re-uptake
* Considered less safe due to side effects
* Include:
  * Amitriptyline – FDA (9-12 yrs)
  * Amoxapine
  * Clomipramine (Anafranil)
  * Desipramine (Norpramin)
  * Doxepin (Silenor)
  * Imipramine (Tofranil)– FDA (6-12 yrs; >12 yrs)
  * Nortriptyline (Pamelor)– FDA (6-12 yrs; > 12 yrs)
  * Trimipramine (Surmontil) – FDA (>12 yrs)

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TCAs – Adverse Effects

* GI symptoms
* Change in appetite
* Anticholinergic symptoms – dry mouth
* Tachycardia

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Misc Antidepressants

* Inhibit reuptake of NE and DA and other mechanisms
* Include
  * Bupropion
  * Maprotiline
  * Mirtazapine (Remeron)
  * Nefazodone
  * Trazodone

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Suicide Risk - Antidepressants

Suicidality and Antidepressant Drugs *(2007 BBW update)*

Antidepressants increased the risk compared to placebo of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults in short-term studies of major depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of [Insert established name] or any other antidepressant in a child, adolescent, or young adult must balance this risk with the clinical need. Short-term studies did not show an increase in the risk of suicidality with antidepressants compared to placebo in adults beyond age 24; there was a reduction in risk with antidepressants compared to placebo in adults aged 65 and older. Depression and certain other psychiatric disorders are themselves associated with increases in the risk of suicide. Patients of all ages who are started on antidepressant therapy should be monitored appropriately and observed closely for clinical worsening, suicidality, or unusual changes in behavior. Families and caregivers should be advised of the need for close observation and communication with the prescriber. [Insert Drug Name] is not approved for use in pediatric patients. [The previous sentence would be replaced with the sentence, below, for the following drugs: Prozac: Prozac is approved for use in pediatric patients with MDD and obsessive compulsive disorder (OCD). Zoloft: Zoloft is not approved for use in pediatric patients except for patients with obsessive compulsive disorder (OCD). Fluvoxamine: Fluvoxamine is not approved for use in pediatric patients except for patients with obsessive compulsive disorder (OCD).

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